STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 143595

TO: Roy Teller **Location: rem/3d18/3c18** **Art Unit: 1654** **Tuesday, February 08, 2005** **Case Serial Number: 09/594667**	**From: Mary Jane Ruhl** **Location: Biotech-Chem Library** **Remsen 1-A-62** **Phone: 571-272-2524** **maryjane.ruhl@uspto.gov**

Search Notes

Examiner Teller,

Here are the results for your recent search request.

Please feel free to contact me if you have any questions about these results.

Thank you for using STIC services. We appreciate the opportunity to serve you.

Sincerely,

Mary Jane Ruhl
Technical Information Specialist
STIC
Remsen 1-A-62
Ext. 22524

```
=> d his ful

     FILE 'REGISTRY' ENTERED AT 17:11:01 ON 08 FEB 2005
L1             1 SEA ABB=ON  313683-39-5/RN
L2               STRUCTURE 313683-39-5
L3             0 SEA SSS SAM L2
L4             2 SEA SSS FUL L2

     FILE 'HCAPLUS' ENTERED AT 17:13:52 ON 08 FEB 2005
L5             2 SEA ABB=ON  L4
```

2 compds from Registry. See "Query Stat" for structure

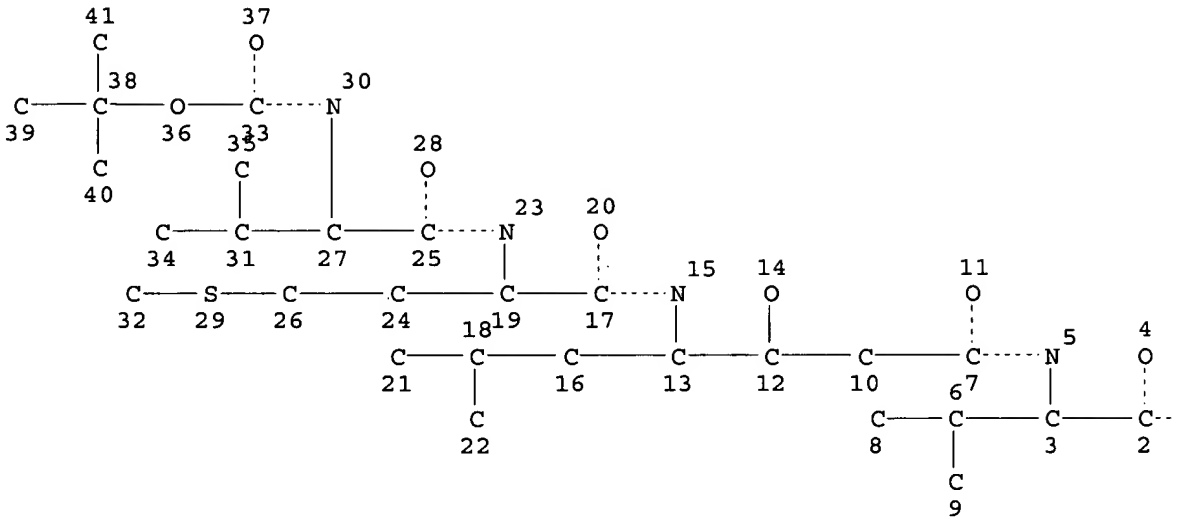
2 cits from CA Plus (both applicants)

I also searched Beilstein and got 0 hits.

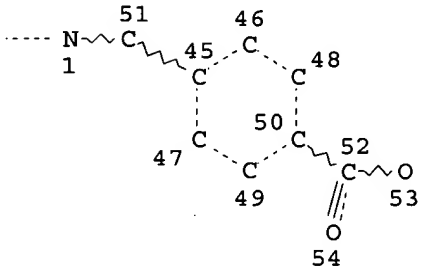
I searched the structure we discussed. It is based on the applicants structure — see yellow post-it — with the modification as sketched.

MJ Ruhl

=> d que stat l5
L2 STR



Page 1-A



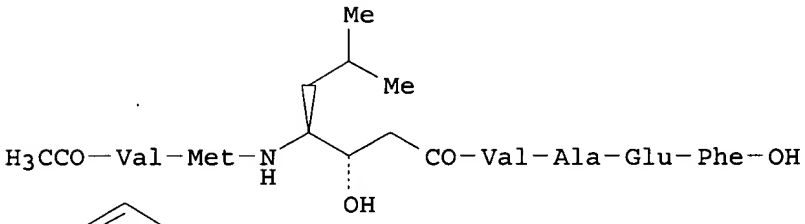
Page 1-B
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 51

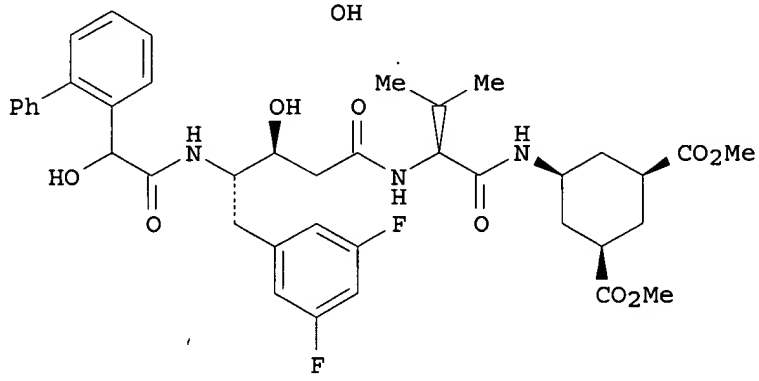
STEREO ATTRIBUTES: NONE
L4 2 SEA FILE=REGISTRY SSS FUL L2
L5 2 SEA FILE=HCAPLUS ABB=ON L4

=> d ibib abs hitstr l5 1-2

L5 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:282950 HCAPLUS
DOCUMENT NUMBER: 139:22494
TITLE: Design and Synthesis of Statine-Based Cell-Permeable Peptidomimetic Inhibitors of Human β-Secretase
AUTHOR(S): Hom, Roy K.; Fang, Larry Y.; Mamo, Shumeye; Tung, Jay S.; Guinn, Ashley C.; Walker, Don E.; Davis, David L.; Gailunas, Andrea F.; Thorsett, Eugene D.; Sinha, Sukanto; Knops, Jeroen E.; Jewett, Nancy E.; Anderson, John P.; John, Varghese
CORPORATE SOURCE: Elan Pharmaceuticals, South San Francisco, CA, 94080, USA
SOURCE: Journal of Medicinal Chemistry (2003), 46(10), 1799-1802
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:22494
GI



I

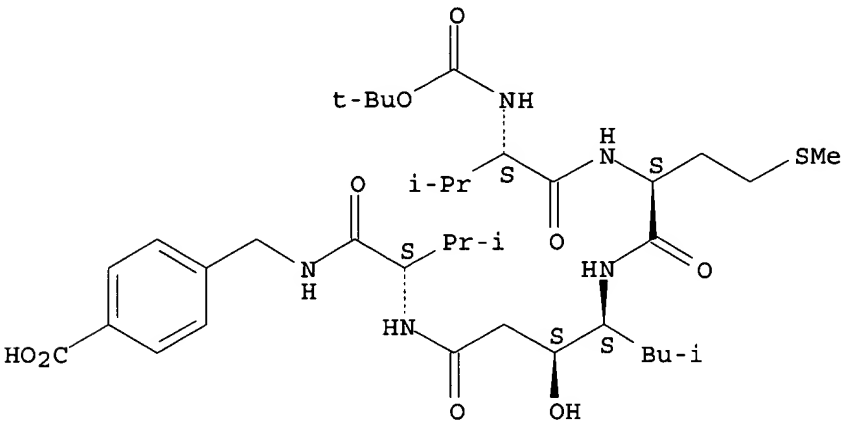


II

AB The authors describe the development of statine-based peptidomimetic inhibitors of human β-secretase (BACE). The conversion of the statine-based peptide I into cell-permeable peptidomimetic inhibitors of BACE was achieved through an iterative strategy of conceptually subdividing I into three regions: an N-terminal portion, a central statine-containing core, and a C-terminus. Replacement of the amino acid residues of I with moieties with less peptidic character was done with retention of BACE enzyme inhibitory activity. This approach led to the identification of peptidomimetic diester II, a cell-permeable BACE inhibitor, that demonstrated BACE-mechanism-selective inhibition of Aβ (amyloid β) secretion in human embryonic kidney cells.

IT **313683-31-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and bioactivity of statine-based peptidomimetics as cell-permeable inhibitors of human β-secretase)
RN 313683-31-7 HCAPLUS
CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-valyl-L-methionyl-(3S,4S)-4-amino-3-hydroxy-6-methylheptanoyl-N-[(4-carboxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:900666 HCAPLUS
DOCUMENT NUMBER: 134:56968
TITLE: preparation of statine-derived tetrapeptides as inhibitors of β-secretase
INVENTOR(S): John, Varghese; Tung, Jay; Fang, Lawrence; Mamo, Shumeye S.
PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000077030	A1	20001221	WO 2000-US16643	20000615
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2376420	AA	20001221	CA 2000-2376420	20000615

EP 1192177 A1 20020403 EP 2000-941491 20000615
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2003502342 T2 20030121 JP 2001-503887 20000615
PRIORITY APPLN. INFO.: US 1999-139173P P 19990615
WO 2000-US16643 W 20000615

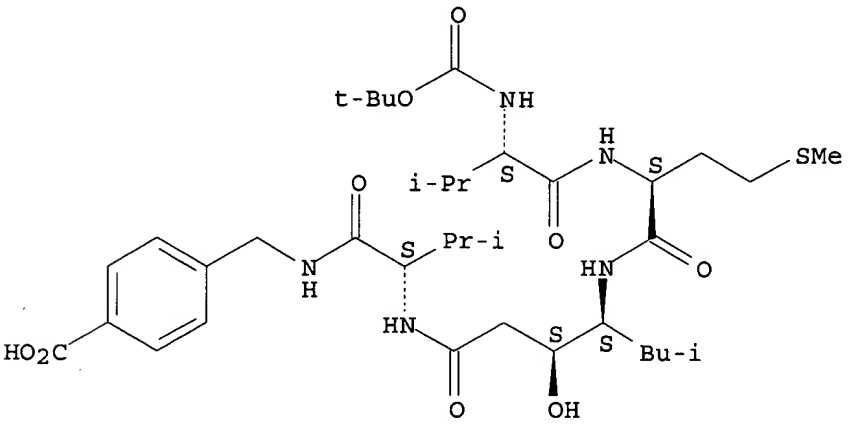
AB Statine-derived peptides ACONHCH(R4)CONHCH(R3)CONHCH(R2)CH(OH)CH2CONHCH(R1)COB [A = straight or branched chain alkanoxy or alkenoxy of 1-5 carbons, (un)substituted aryl or arylalkyl; R1 = H, C1-C5 alkyl; R2 = i-Pr, i-Bu, or Ph (un)substituted with H, OH, C1-C2 alkyl, Ph, halogen, etc.; R3 = Ph, C1-C5 alkyl, or 2-methylthioethyl; R4 = i-Pr, sec-Bu, or i-Pr; B = hydroxy or various N-attached groups, e.g., 3,5-, 3,4-, 2,4-, 2,5-dicarboxycyclohexylamine or 4-aminobenzoic acid] were prepared as inhibitors of β-secretase. Thus, Boc-L-Val-L-Met-L-Sta-L-Val-OMe (Boc = tert-butoxycarbonyl, Sta = statine residue) was prepared by peptide coupling in solution and assayed for β-secretase inhibition (IC50 > 200 μM).

IT **313683-31-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of statine-derived tetrapeptides as inhibitors of β-secretase)

RN 313683-31-7 HCAPLUS

CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-valyl-L-methionyl-(3S,4S)-4-amino-3-hydroxy-6-methylheptanoyl-N-[(4-carboxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

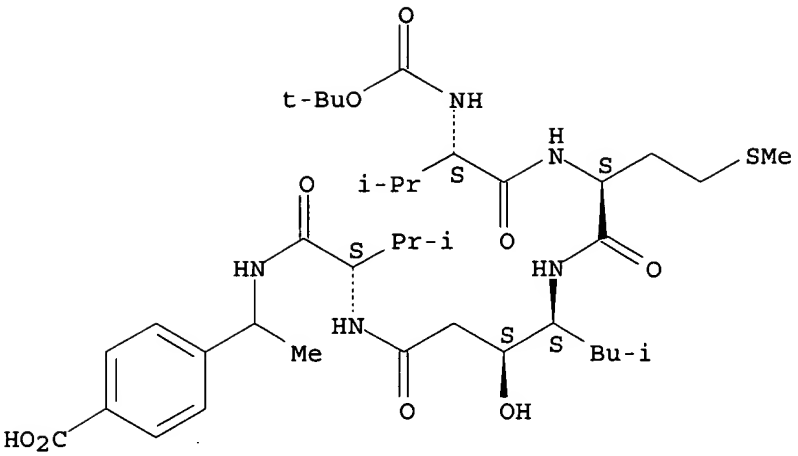


IT **313683-47-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of statine-derived tetrapeptides as inhibitors of β-secretase)

RN 313683-47-5 HCAPLUS

CN L-Valinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-valyl-L-methionyl-(3S,4S)-4-amino-3-hydroxy-6-methylheptanoyl-N-[1-(4-carboxyphenyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT